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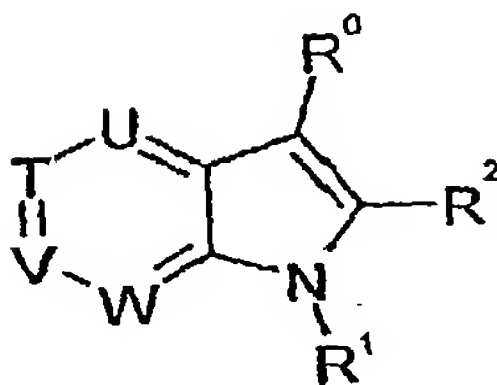
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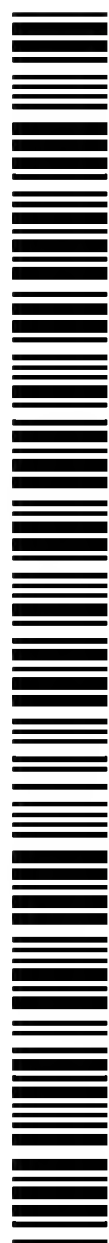
*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: HETEROCYCLIC COMPOUNDS AND THEIR USE AS MODULATORS OF P38 MAP KINASE



(I)

(57) **Abstract:** The invention provides a compound for use in the prophylaxis or treatment of a disease state or condition mediated by a p38 MAP kinase such as rheumatoid arthritis and osteoarthritis; the compound being of the general formula (I): wherein U, T, V and W are each a nitrogen atom or a group CR⁴ provided that no more than three of U, T, V and W are nitrogen atoms; R⁰ is hydrogen, C₁₋₄ hydrocarbyl, halogen or a group -A-R³; R¹ is hydrogen, C₁₋₄hydrocarbyl or a group -A-R³; provided that only one of R⁰ and R¹ is a group -A-R³; R² is hydrogen, C₁₋₄hydrocarbyl or halogen; A is a carbon- or heteroatom-containing linker group having a linking chain length of one or two atoms; R³ is a monocyclic or bicyclic heteroaryl group containing from five to twelve ring members; each group R⁴ is independently selected from hydrogen, hydroxy, halogen, nitro, cyano, a monocyclic heterocyclic group having up to seven ring members, a group N(R⁵)₂, a group C(O)N(R⁶)₂, a group SO₂N(R⁶)₂, a group R^a-R^b and a group Y; provided that no more than one group Y is present;



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) :

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 471 296 A (HOEUCHST-ROUSSEL) 19 February 1992 (1992-02-19) the whole document ---	1,3,5,9, 56,59-66
X	US 4 496 572 A (P.E. CROSS) 29 January 1985 (1985-01-29) column 1 -column 2; claims ---	1,3,5,9, 56,59-66
X	US 6 069 156 A (TERUO OKU ET AL.) 30 May 2000 (2000-05-30) column 87 -column 103; example 39 ---	1,3,5,9, 56,59-66
X	US 3 300 506 A (CH.J. CAVALLITO) 24 January 1967 (1967-01-24) column 1 -column 9 ---	1,3,5,9, 56
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International Application No.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 842 996 A (IRWIN, NEISLER) 4 August 1960 (1960-08-04) page 1 -page 4 ---	1, 3, 5, 9, 56
X	US 2 695 290 A (J. FINKELSTEIN) 23 November 1954 (1954-11-23) column 1 -column 4 ---	1, 3, 5, 9, 56
X	CHEMICAL ABSTRACTS, vol. 119, no. 27, 1993 Columbus, Ohio, US; abstract no. 180651v, page 773; XP002257894 abstract & JP 00 543544 A (NISSHIN FLOUR MILLING) 23 February 1993 (1993-02-23) ---	1, 3, 5, 9, 56, 59-66
X	WO 99 43654 A (GENETICS) 2 September 1999 (1999-09-02) cited in the application claims; example 136 ---	1, 56, 59-66
X	CHEMICAL ABSTRACTS, vol. 124, no. 11, 1996 Columbus, Ohio, US; abstract no. 135662s, JOHN F. REINHARD JR.: "EFFECTS OF 540C91{E-3}'2-(4'-PYRIDYL)-VINYL!-INDOLE" page 148; column 1; XP002257895 abstract & BIOCHEM. PHARMACOL., vol. 51, no. 2, 1996, pages 159-63, US ---	1, 3, 5, 9, 56
X	CHEMICAL ABSTRACTS, vol. 70, no. 27, 1969 Columbus, Ohio, US; abstract no. 19857b, A.K.SHEINKMAN: "SYNTHESIS A. PHARMACOLOGY OF N-(PYRIDYLALKYL)-INDOLINES AND INDOLES." page 1973; column 2; XP002257896 abstract & KHIM.-FARM. ZH., vol. 2, no. 9, 1968, pages 29-35, USSR ---	1, 3, 5, 9, 56, 59-66

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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/GB 03/01507

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CHEMICAL ABSTRACTS, vol. 53, no. 11, 1959 Columbus, Ohio, US; abstract no. 9462i, J.H. MIRSKY: "CNS DEPRESSANT OF SOME INDOLYL-ETHYLPYRIDINES." page 9462; XP002257897 abstract & J. PHARMACOL., EXPTL. THERAP., vol. 125, 1959, pages 122-7, ---	1, 3, 5, 9, 56, 59-66
A	WO 01 47922 A (AVENTIS) 5 July 2001 (2001-07-05) cited in the application page 1; claims ---	1, 56, 59-66
A	WO 00 46198 A (ASTRAZENECA) 10 August 2000 (2000-08-10) cited in the application page 1 -page 12; claims; table 1 ---	1, 56, 59-66
X	EP 0 733 628 A (LILLY) 25 September 1996 (1996-09-25) figure SCH.1; examples ---	67
X	WO 93 18026 A (BEECHAM) 16 September 1993 (1993-09-16) examples ---	67
X	WO 96 39382 A (FUJISAWA) 12 December 1996 (1996-12-12) examples -----	67

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Present claims 1 to 55, 60 to 67 relate to an extremely large number of possible compounds/methods. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds/methods claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the compounds of the examples wherein R3= pyridyl- group, pyrimidinyl- group, or 2-pyrazolyl- group and the corresponding intermediates of claim 67.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 03/01507

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claim 57 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

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